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Banking Beyond Bank Branches

A Case Study of M-Pesa and Financial Inclusion in Kenya

Secondary research case study | Evidence through 2025

Author: Dhruv Chadha
Institution: Pathways World School, Gurgaon, India
Mentor: Rohit Gupta

ABSTRACT

M-Pesa demonstrates how financial services can reach households through mobile phones and local agents. This case study examines its contribution to financial inclusion in Kenya, distinguishing the expansion of payment access from improvements in financial wellbeing. It uses secondary evidence from official surveys, company reports, and academic research covering developments through 2025. Growth in active customers and agents shows substantial expansion, while household studies identify benefits involving emergency transfers, poverty reduction, occupational choice, and educational investment. These gains coexist with exclusion, unreliable cash access, and repayment difficulties in the broader digital credit market. The central argument is that M-Pesa's contribution depends on the interaction between useful technology, accessible distribution, household resources, and effective regulation. Its experience supports expanding affordable financial services while evaluating whether people can use them reliably and improve their lives.

Keywords: M-Pesa; financial inclusion; mobile money; financial wellbeing; agent networks; Kenya.

INTRODUCTION

Financial inclusion concerns whether people can obtain and use financial services that meet their needs at an affordable cost. For a household with irregular earnings, a useful service might provide a safe way to receive wages, transfer money to relatives, accumulate school fees, or manage an unexpected expense. An account is valuable when it makes these activities easier. Counting accounts therefore provides an incomplete assessment of inclusion: a person may have access to payments while remaining unable to save or withstand an income shock.

M-Pesa offers a case for examining these distinctions. Developed by Vodafone and commercially launched by Safaricom in Kenya in March 2007, it allowed customers to exchange cash for electronic value through retail agents and transfer that value using ordinary mobile phones (Mas & Radcliffe, 2010). Its design connected a telecommunications network to everyday financial transactions. Understanding this arrangement helps explain how a service could expand without requiring every customer to visit a conventional bank branch.

The research question guiding this study is: To what extent has M-Pesa expanded financial inclusion in Kenya, and how far has greater access translated into improved household outcomes? The analysis examines the operating model, growth, economic effects, and remaining barriers. It argues that M-Pesa substantially improved the delivery of payments and enabled additional financial services, while the benefits depended on users' circumstances and the quality of the surrounding institutions.

RESEARCH APPROACH

This is a secondary research case study. Safaricom's results booklets provide platform indicators; the FinAccess household survey provides national access measures; and academic studies investigate specific household outcomes. The analysis combines descriptive comparisons with critical interpretation. It does not collect primary survey responses or estimate a new causal effect. Growth calculations use comparable reported indicators, with fiscal years identified separately from household survey years.

Three distinctions guide the interpretation. Company customer counts differ from population percentages. National financial inclusion includes multiple providers and cannot be attributed entirely to M-Pesa. Finally, evidence about the basic wallet differs from evidence about bank savings or credit products delivered through it. Studies using randomized encouragement or a lending eligibility threshold can identify particular effects under their assumptions, but those effects need not apply to every customer or to later periods.

How the M-Pesa Model Works

M-Pesa's early service linked an electronic money account to a customer's telephone number. Customers registered through authorized outlets and used a SIM-based menu. An agent exchanged physical cash for electronic value, which could be transferred, used for payments, or

converted back into cash. For example, a worker could deposit earnings near the workplace and send money to a relative who withdrew it locally. The system used existing shops to make financial transactions geographically accessible (Mas & Radcliffe, 2010).

The relevant cost of a payment includes more than its advertised fee. Travelling to a branch can involve transport costs, waiting, and lost working time. An analytical comparison should therefore consider the entire cost of completing a transaction. A nearby service can remain attractive even when it charges a fee, provided the combined monetary and practical costs are lower than the available alternative. This helps explain why convenience matters particularly when people transfer small amounts frequently.

Distribution also required commercial incentives and trust. Mas and Ng'weno (2010) identify branding, consistent agent service, and the relationship between customer prices and agent commissions as important features of M-Pesa's expansion. A payment network becomes more useful as additional relatives, customers, and merchants join it. However, early users need confidence that someone will accept the service and that agents will complete transactions. This creates a coordination problem: investment in customer awareness and agent availability must develop together.

The wallet also requires safeguards for the money it represents. Kenya's National Payment System Regulations established requirements concerning trust arrangements, separation of customer funds, redemption, and restrictions on lending by nonbank e-money issuers (National Payment System Regulations, 2014, regs. 25, 44–45). These provisions help explain the institutional model. Holding an M-Pesa balance does not automatically provide every feature of a bank account, and safeguards do not remove operational or fraud risks. Reliable access depends on both the digital transaction record and the arrangements supporting redemption.

This arrangement changes the location of the customer relationship while preserving a role for financial institutions behind the service. A nearby agent provides the physical interface; the operator maintains the payment network; and regulated institutions support the treatment of customer funds. The resulting lesson is organizational as well as technological. Financial inclusion can improve when institutions divide functions according to their capabilities.

Assessing the model requires asking who holds the money, who executes a payment, who bears operational risk, and which institution must respond when a customer encounters a problem.

Growth of M-Pesa in Kenya

Table 1 compares M-Pesa's Kenyan customer and agent indicators. The customer measure is Safaricom's one-month active count, which is more informative about recent use than total registrations. Nevertheless, it remains a company metric rather than a count of distinct Kenyan adults. The agent series records the reported network and should not be interpreted as the number of agents transacting every month.

Table 1

Growth of M-Pesa customers and agents in Kenya

Indicator	FY2020	FY2024	FY2025	2020–2025 growth
One-month active customers, millions	24.91	32.41	35.82	43.8%
Reported M-Pesa agents	173,259	262,016	298,890	72.5%

Note. Financial years ended 31 March. Kenya business only. Growth percentages are the author's calculations from reported values. Sources: Safaricom PLC (2020, p. 5; 2025, p. 8).

Active customers increased by 10.91 million over five years, equivalent to approximately 7.5% compound annual growth. The agent network expanded by 125,631, or approximately 11.5% annually on the same compounded basis. These calculations divide the final value by the initial value, take the fifth root, and subtract one. They summarize the interval and do not imply that growth occurred evenly each year.

Faster agent growth is consistent with investment in distribution, although national totals cannot establish whether remote communities received adequate coverage. A useful next measure would be the distance to a functioning agent, combined with transaction success rates and local cash availability. An increase in active customers can reflect new adoption or previously registered customers returning. It does not measure transaction frequency among already active customers. Growth assessment should examine both the breadth of participation and the reliability of use.

Transaction turnover also requires careful interpretation. A transfer can move existing money through several accounts without creating an equivalent amount of new production. Consequently, payment values cannot be treated as M-Pesa's contribution to gross domestic

product. Business growth, financial inclusion, and economic development are related questions requiring different evidence. This case therefore evaluates customer reach alongside household studies instead of converting transaction totals into an unsupported estimate of national economic impact.

Growth in National Financial Inclusion

Kenya's national survey provides a wider perspective. Table 2 records formal access and financial exclusion across selected survey years. Formal access includes qualifying services beyond conventional banks, including mobile money; the excluded category means exclusion under the survey's financial access classification. The 2024 substantive analysis concerns adults aged 18 and above (Central Bank of Kenya et al., 2024).

Table 2

Financial access in Kenya in selected survey years

Survey year	Formal financial access	Financially excluded
2006	26.7%	41.3%
2016	75.3%	17.4%
2019	82.9%	11.0%
2021	83.7%	11.6%
2024	84.8%	9.9%

Note. Percentages follow the report's historical access series. The remaining category is informal-only access; rounding may affect totals. These are national measures, not M-Pesa market shares. Source: Central Bank of Kenya et al. (2024, p. 10).

Formal access increased by 58.1 percentage points between 2006 and 2024, while exclusion declined by 31.4 points. These calculations describe the national change. They do not identify the share caused by one company. Bank expansion, other financial providers, communications infrastructure, and public policy also form part of the setting in which adoption occurs.

Establishing M-Pesa's separate contribution requires evidence that compares outcomes with a credible estimate of what would have happened without improved access.

HOUSEHOLD AND ECONOMIC EFFECTS

Emergency Transfers and Resilience

Jack and Suri (2014) examined how mobile money affected households experiencing negative income shocks. Their study found that consumption declined by approximately 7% among nonusers, while no statistically significant consumption decline was detected among users. Increased remittance receipts and a wider range of senders helped explain this difference. The analysis used household panel data and variation associated with expansion of the agent network, rather than randomly assigning M-Pesa access.

The economic mechanism is risk sharing. If a household experiences illness or lost earnings, relatives elsewhere may contribute assistance. Lower transfer barriers allow support to arrive more readily and from a wider network. This interpretation does not mean that technology creates the money being transferred. Its effectiveness depends on other people having resources to share. A shock affecting many connected households simultaneously could weaken that support mechanism, making formal insurance and public assistance important complements.

Timing is especially important in this process. An expense may become urgent before a household receives its next income payment. The ability to obtain assistance promptly can prevent a temporary shortfall from forcing a costly decision, such as selling a useful asset. This is an interpretation of how improved transfers could protect longer-term opportunities, rather than a separate measured result. It also explains why evaluating only transaction fees misses part of the potential benefit: the speed and reliability of completing a transfer may matter as much as its price.

Poverty and Women's Livelihoods

Using household evidence from 2008–2014, Suri and Jack (2016) estimated that improved access to M-Pesa helped approximately 194,000 Kenyan households move out of poverty, around 2% of households. They also estimated that 185,000 women shifted from farming into business or retail occupations. Benefits were particularly pronounced for female-headed

households. These figures are historical estimates extrapolated from research, rather than administrative counts or updated totals for 2025.

The findings suggest that financial access can affect livelihood choices as well as immediate spending. Better access to transfers and savings may give a household more flexibility when changing activities. However, an occupational shift does not necessarily represent a newly created firm or salaried job. The research compared areas with different agent expansion, so its causal interpretation depends on adequately addressing other differences between those areas. Its results support an important contribution while leaving room for uncertainty about mechanisms and wider applicability.

Savings and Education

Financial inclusion can deepen when payment infrastructure connects customers to additional products. M-Shwari, introduced in 2012 through Safaricom's partnership with Commercial Bank of Africa, offered bank savings and loans through the M-Pesa interface (Cook & McKay, 2015). The distinction matters because a payment wallet and a bank savings product serve different functions. Convenient access to a wallet can become an entry point into a broader relationship, but the benefits and obligations depend on the particular product.

Habyarimana and Jack (2024) provide evidence about educational investment. In a randomized study, parents of children completing primary school were encouraged to open mobile phone-based bank accounts. Being offered access increased the probability of transition to high school by approximately five to six percentage points. The intervention involved M-Shwari services delivered through the M-Pesa platform. Its findings concern the additional banking intervention and should not be attributed to ordinary person-to-person transfers alone.

This example connects finance to a concrete development outcome. School expenses often require a substantial payment at a particular date, while earnings may arrive gradually. A suitable account can help households organize resources across time. The policy lesson is to assess whether products match actual payment schedules and household needs. Access becomes more meaningful when it supports a defined purpose, and the relevant success measure becomes school participation rather than the number of accounts opened.

Banking Relationships and Enterprise

Mbiti and Weil (2011) found that greater M-Pesa use was associated in their analysis with increased likelihood of being banked and reduced reliance on some informal savings arrangements. They found limited evidence that the wallet itself served as a long-term store of wealth. Their findings suggest complementarity between mobile payments and banking, rather than a simple replacement of one institution by another.

Complementarity changes how progress should be measured. A customer could keep little money in a payment wallet because funds move into a savings account, making a low wallet balance compatible with effective financial management. Conversely, a frequently used wallet could belong to someone who has no resources left to save. Researchers therefore need to examine the household's financial arrangements across services. Treating one product's balance as a complete measure of financial security would overlook how people allocate money between immediate expenses, future commitments, and emergencies.

For a small enterprise, faster receipts and easier supplier payments could reduce the time and cash needed to coordinate transactions. These are plausible channels, not an estimate that every merchant earns higher profits. A stronger business evaluation would measure costs, sales, stock availability, and net earnings before and after adoption against comparable firms. It would also separate the benefits of the payment service from changes in customer demand or access to credit. This prevents operational convenience from being mistaken for demonstrated business growth.

Limits and Risks of Inclusion

National access gains coexist with weaker financial wellbeing. FinAccess reported that only 18.3% of adults were financially healthy in 2024, compared with formal access of 84.8% (Central Bank of Kenya et al., 2024). Financial health evaluates the ability to meet everyday needs, cope with shocks, and invest in future goals. The contrast does not demonstrate that M-Pesa caused financial distress. It shows why a broad assessment must examine household resources and outcomes alongside access.

Usable access also depends on agents' ability to exchange cash and electronic value. Sbeih and Cook (2019) reported research involving more than 400 low-income M-Pesa users in Nairobi. Forty-one percent reported experiencing at least two cash-in or cash-out problems per month

associated with liquidity shortages. The sample was not nationally representative. Nevertheless, it identifies an operational weakness: a digital balance may be difficult to use when an agent lacks the cash needed for withdrawal or the electronic float required for deposits.

Digital credit brings additional trade-offs. Suri et al. (2021), studying customers around M-Shwari's credit eligibility threshold, found that access reduced the likelihood of forgoing expenses after negative shocks by 6.3 percentage points. This provides evidence that a particular lending product helped some households manage short-term difficulties. The estimate is most informative about customers near the studied threshold and does not establish that every borrower or lender produces the same outcome.

Conversely, a survey conducted in 2017 found that 47% of Kenyan digital borrowers reported having repaid late, 12% reported having defaulted, and 20% reported cutting food purchases to repay loans (Kaffenberger & Totolo, 2018). These historical, self-reported figures cover digital credit across providers, rather than all M-Pesa users or M-Shwari alone. Together, the studies show why product design, borrower selection, repayment schedules, and circumstances matter. Expanding loan availability should therefore be evaluated alongside repayment stress and the affordability of credit.

Remaining exclusion also requires attention to the practical steps involved in using a service. A person must be able to register, understand instructions, protect access credentials, and obtain assistance when something goes wrong. Potential design concerns include privacy when devices are shared and users' control when they depend on intermediaries. These are useful design questions even where headline access rates are high. Providers should test whether vulnerable users can complete essential tasks independently and resolve mistakes without disproportionate expense. Accessible interfaces should accommodate people with disabilities and different levels of literacy.

Lessons for Policy and Future Growth

The first lesson is to assess service quality alongside expansion. Customer and agent totals should be complemented by measures of successful transactions, affordability, complaint resolution, and access in underserved locations. Reporting these outcomes by income, sex, age, and location would make uneven benefits more visible. An additional registered customer is a

limited achievement if that person cannot reliably withdraw money, understand charges, or obtain help after a mistaken transfer.

Evaluation should also identify the distribution of gains. Average improvements can conceal groups whose access costs remain high. A useful assessment would compare outcomes for first-time users, established customers, and people who remain excluded, while accounting for initial income and local service availability. Following households over time would help distinguish temporary adoption from durable improvements. Interviews could then explain why a technically available product remains unused. These additions would connect national statistics to the everyday constraints that an inclusion strategy is intended to address.

The second lesson concerns competition and interoperability, meaning the ability of different payment systems to work together. Kenya's National Payments Strategy 2022–2025 identified interoperability, security, customer needs, and effective regulation as priorities (Central Bank of Kenya, 2022). These objectives address a tension in successful payment networks: scale makes participation useful, but dependence on a single system may reduce customer choice. Policymakers should encourage convenient connections while maintaining clear responsibilities when payments fail.

The third lesson is to evaluate financial products by their purpose and consequences. A transfer service, savings account, and short-term loan solve different problems. Clear pricing, proportionate affordability checks, accessible complaints processes, and responsible handling of personal data should accompany product growth. Financial education can support informed use, while providers remain responsible for understandable design. Replicating Kenya's experience elsewhere would require attention to local trust, regulation, distribution, and household needs rather than assuming that launching a similar application will produce similar results.

CONCLUSION

M-Pesa changed how financial services could be delivered in Kenya by connecting mobile transactions with a widespread agent network. Its growth demonstrates sustained demand for accessible payments, while academic research identifies meaningful effects on resilience, poverty, livelihoods, and educational investment. These findings provide stronger evidence of inclusion than customer totals alone because they examine how financial tools affect decisions and living conditions.

The case also establishes the limits of a purely technological explanation. Payment access cannot guarantee adequate income, affordable borrowing, or protection against every shock. Company growth and national inclusion statistics describe expansion, while causal studies illuminate particular outcomes within specific populations and periods. Future progress should therefore combine reliable infrastructure with appropriate savings and credit products, consumer protection, and continued evaluation. M-Pesa's central contribution is its demonstration that everyday financial access can be organized differently; the continuing task is to ensure that wider access produces durable benefits for the people who use it.

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